

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims:

1. (Currently Amended) A method of cleaning method of treatment film deposition equipment, having a chamber in which a metal film ^{is} (may be stuck to an inside surface thereof,
the chamber being connected to piping and exhaust connected to a vacuum pump, 112nd both connected to vacuum pump
comprising:

(a) vaporizing a cleaning agent to form a vaporized cleaning agent; a step of, while
supplying a cleaning gas containing a substance directly complexing prescribed metal in a
treatment chamber of the treatment equipment that treats a substrate, exhausting the cleaning
gas from the treatment chamber.

91 (b) supplying the vaporized cleaning agent through the piping into the chamber which
is being evacuated;

(c) directly forming a metal complex by contacting the vaporized cleaning agent with
the metal ^{film} inside of the chamber; and

(d) subliming the metal complex and exhausting it from the chamber through the
exhaust, ^{112nd both connected to vacuum pump} thereby removing the metal film from the chamber of the film deposition
^{equipment}

2. (Currently Amended) The cleaning method of claim 1 [:] wherein the substance
of directly complexing cleaning agent is carboxylic acid or a derivative of carboxylic acid.

3. (Currently Amended) The cleaning method of claim 2 1 [:] wherein the ~~carboxylic acid or the derivative of carboxylic acid~~ cleaning agent is a substance expressed by the a compound selected from among the following equations: RCOOH , RCOOR' , ~~or~~ and $\text{R}(\text{COOH})_n$ (R, R' are hydrocarbon ~~group~~ groups ~~capable of~~ containing halogen ~~atom~~ atoms, n being an integer).

4. (Currently Amended) The cleaning method of claim 3 1 [:] wherein the ~~substance~~ for directly complexing cleaning agent is trifluoroacetic acid.

5. (Currently Amended) The cleaning method of claim 1 [:] wherein the ~~treatment~~ film deposition equipment is ~~film formation equipment~~ one of a chemical vapor deposition equipment and a physical vapor deposition equipment.

6. (Currently Amended) The cleaning method of claim 1 [:] wherein the ~~prescribed~~ metal is copper.

7. (Currently Amended) The cleaning method of claim 1 [:] ~~wherein the cleaning gas contains~~ further comprising adding an additive to the vaporized cleaning agent that promotes complexing ~~of~~ the vaporized cleaning agent with the ~~prescribed~~ metal.

8. (Currently Amended) The cleaning method of claim 4 7 [:] wherein the additive is water vapor.

9. (Currently Amended) A method of cleaning method of treatment film deposition equipment, having a chamber in which a metal film may be stuck to an inside surface thereof, the chamber being connected to piping and exhaust connected to a vacuum pump, comprising the steps of:

(a) vaporizing a cleaning agent to form a vaporized cleaning agent; supplying, in a treatment chamber of treatment equipment treating a substrate, a cleaning gas containing a substance directly complexing prescribed metal; and

(b) supplying the vaporized cleaning agent through the piping into the chamber which is evacuated;

(c) directly forming a metal complex by contacting the vaporized cleaning agent with the metal inside of the chamber; and

(d) subliming the metal complex and exhausting the cleaning gas it from the treatment chamber through the exhaust.

10. (Currently Amended) The cleaning method of claim 9 [:] wherein at least the steps of supplying the cleaning gas and of exhausting the cleaning gas (b) through (d) are alternately repeated.

11-16. (Withdrawn)